

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Rec'd PCT/PTO 27 SEP 2004

Applicant's or agent's file reference PCTA/LHT/1	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/KR2003/000645</b>	International filing date (day/month/year) <b>31 MARCH 2003 (31.03.2003)</b>	Priority date (day/month/year) <b>30 MARCH 2002 (30.03.2002)</b>
International Patent Classification (IPC) or national classification and IPC  <b>IPC7 A23L 1/16</b>		
Applicant  <b>LIM, Hyung-Tae</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of 6 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  <b>30 OCTOBER 2003 (30.10.2003)</b>	Date of completion of this report  <b>22 JULY 2004 (22.07.2004)</b>
Name and mailing address of the IPEA/KR  <b>Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea</b>	Authorized officer  <b>LEE, Ho Jo</b>  Telephone No. <b>82-42-481-5631</b>

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/KR2003/000645

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
 pages 1-23 , as originally filed  
 pages \_\_\_\_\_ , filed with the demand  
 pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_
- ☒ the claims:  
 pages \_\_\_\_\_ , as originally filed  
 pages 24-26 , as amended (together with any statement) under Article 19  
 pages \_\_\_\_\_ , filed with the demand  
 pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
 pages 1-10 , as originally filed  
 pages \_\_\_\_\_ , filed with the demand  
 pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_ , as originally filed  
 pages \_\_\_\_\_ , filed with the demand  
 pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language English which is

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☒ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☒ the claims, Nos. 1
- ☐ the drawings, sheet \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.

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## IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees:

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

The application does not meet the requirement for unity of invention of Article 3(4)(iii), 34(3) and Rule 13.1 PCT.

Invention 1: claims 2-6 concern soup ingredients for instant noodle.

Invention 2: claims 7-9 concern a method for manufacturing noodle.

Invention 3: claims 10-16 concern a package for noodle or soup ingredients.

The present inventions 1-3 relate to instant noodle, but they do not share any technical feature in common. Therefore, the application contains the said separate groups of inventions.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
- ☐ the parts relating to claims Nos.

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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	2-9, 11-14	YES
	Claims	10, 15, 16	NO
Inventive step (IS)	Claims	2-9	YES
	Claims	11-14	NO
Industrial applicability (IA)	Claims	2-16	YES
	Claims		NO

### 2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1: KR-U-1995-16294  
D2: KR-Y-178277  
D3: KR-A-1996-20730  
D4: KR-A-1996-36938  
D5: KR-Y-173867

#### 1. Claims 2-6

Independent claim 2 of the present invention relates to a teabag-type instant noodle soup including vegetables such as radish juice, bean sprout juice, green tea leaves, spring onions, green chilli pepper, dried fragrant mushrooms, sea tangle, garlic, and onion and powders or pellets of dried pollack. Compared with a powdery-state common instant noodle soup made from meat, the teabag-type instant noodle soup based with vegetables and dried pollack shreds in the present invention has less oily texture and fresh taste.

D1 discloses a teabag-type instant noodle soup having powdery ingredients for noodle. D2 discloses a method of packaging instant noodle with two sachets for ingredients: one for dried dropwort powder and the other for other powdery ingredients.

Among the technical features of the present invention, the method relating to containing soup ingredients into a teabag-type package is disclosed in D1 which includes the technical feature of containing soup ingredients into a teabag-type package, and in D2 which discloses the feature of adding a particular vegetable, dropwort into powdery ingredients for soup. However, said documents do not disclose instant noodle soup comprising vegetable components such as radish juice, bean sprout juice and dried pollack shreds. Accordingly, claim 2 has novelty and claims 3-6 dependent on claim 2 also have novelty under PCT Article 33(2).

(Continued on Supplemental Sheet)

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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## Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

### Continuation of:

The subject matter of the present invention is instant noodle soup comprising only vegetables and dried pollack shreds with an effect of making instant noodle taste non-greasy. The present invention is a new replacement of conventional powdered soup base made from meat, of which the components cannot be easily selected by a person skilled in the art and the effect of the invention is also specific, which is not easily foreseen from conventional instant noodle soup. Therefore, claim 2 is considered to involve an inventive step and claims 3-6 dependent on claim 2 also involve an inventive step under PCT Article 33(3).

### 2. Claims 7-9

Independent Claim 7 of the present invention relates to a method for manufacturing instant noodle. Compared with a conventional method for manufacturing instant noodle comprising the steps of kneading, cutting, steaming, shaping, frying in oil, cooling and drying, the method as defined in claim 7 is different in that 5-10% of total weight of instant noodle is composed of potato starch; that the cut noodle is infused with a flavor during the steaming step; and that the shaped noodle is directly cooled and dried without being fried. In the present invention, the step of frying noodle in oil is omitted to get rid of oil from the resultant, instant noodle. And to keep the shape of noodle in good condition without the step of frying in oil which is necessary for retaining the shape of noodle, 5-10% of the total weight of instant noodle is composed of potato starch. In addition, the noodle is infused with a flavor.

Accordingly, since the instant noodle of the present invention does not have any oily components, its shelf-life can be longer than that of conventional instant noodle. And infusing a flavor onto noodle can fulfill various requirements of customers.

D3 discloses a method of manufacturing instant noodle, without the step of frying in oil, comprising the steps of: kneading a mixture of flour, salt and water, cutting, steaming and cooling said mixture. D4 discloses a method of manufacturing transparent instant noodle made of only starch comprising the steps of: making a dough of potato starch and hot water, and pressing said dough; shaping said dough, steaming the shaped noodle and blanching steamed noodle; and cooling and drying said noodle.

The technical feature of the present invention which relates to a method of manufacturing instant noodle without frying in oil, is similar to that of D3 which relates to technical feature of manufacturing instant noodle by cooling steamed noodle directly without shaping and frying in oil, and also similar to D4 in that instant noodle which is shaped, steamed and blanched is cooled and dried without being fried in oil. In addition, the present invention is similar to that of D4 in that potato starch is used as a material for instant noodle.

However, the prior art documents do not disclose the step of combining a prescribed amount of potato starch as a material for instant noodle with conventional materials for instant noodle of which the main component is flour and the step of infusing a flavor onto noodle. Therefore, claim 7 has novelty and claims 8-9 dependent on claim 7 also have novelty under PCT Article 33(2).

The omission of the step of frying in oil is represented in the prior art documents, but the method of the present invention is unique in that a prescribed amount of potato starch is used to retain the shape of noodle which can be damaged without the step of frying in oil, resulting from the fact that the main component of noodle is flour even though the present invention also follows the conventional steps of manufacturing instant noodle without frying in oil: kneading, cutting, steaming, shaping, cooling and drying.

(Continued on Supplemental Sheet)

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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## Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

## Continuation of:

The present invention is different from the technical feature of D3 in that the process of making noodle comprises kneading, cutting, steaming, and cooling except the step of shaping because the material for instant noodle is only flour, the main material of conventional instant noodle and a particular condition is required during the steps of kneading and cutting, which is different from the conventional steps of manufacturing instant noodle. The present invention also differs from the feature of D4 in that the step of shaping before steaming and the step of blanching after steaming come to be required since using potato starch as a main material of noodle requires the steps such as pressing, shaping, steaming, blanching and cooling. The said technical features enable the present invention to manufacture oil-free instant noodle by adding a particular amount of potato starch in order to shape instant noodle easily by omitting only the step of frying in oil from the conventional steps of manufacturing instant noodle; and to manufacture instant noodle with a particular flavor by infusing a flavor during the step of steaming. The said technical features are not easily applied in the method for preparing general instant noodles and the effect of them is difficult to be foreseen by a skilled person in the art. Therefore, claim 7 is considered to involve an inventive step and claims 8-9 dependent on claim 7 also involve an inventive step under PCT Article 33(3).

## 3. Claims 10-16

Independent claim 10 of the present invention relates to a package containing instant noodle or soup ingredients characterized by compartments of a package for containing divided contents. Claim 11 dependent on claim 10 relates to a tearing part formed across one edge of a package which would be the openings of said compartments. Claim 12 dependent on claim 10 or 11 relates to uneven parts formed at both sides of the dividing part to tear the wrapper off parallel to the dividing part of the wrapper. Claim 13 dependent on claim 10 relates to dividing parts formed with cleavage parts at both sides of a sealing part. Claim 14 dependent on claim 10 relates to the wrapper formed in a circular shape. Claim 15 dependent on claim 10 relates to the wrapper formed in a rectangular shape. Claim 16 dependent on claim 10 relates to each compartment which can be opened separately. As a result of varying the amount of noodle or soup ingredients by wrapping separately, the present invention enables the customers to use the amount as they want. D5 discloses a package for soup ingredients for instant noodle, having two or more compartments for the customers to use the amount of said ingredients as they want.

Claims 10, 15, and 16 lack novelty under PCT Article 33(2) since the technical features such as forming compartments in a package, shaping the package into a rectangle, and separating each compartment by tearing off the uneven parts between compartments are disclosed in the prior art documents. But the technical feature of claims 11-14 is not disclosed in said document. Therefore, claims 11-14 have novelty under PCT Article 33(2).

However, the uneven part of Claim 12 is a similar structure to the opening slit of the prior art having the same purpose. And the uneven part formed across the dividing part in claim 12, a tearing part of claim 11 and dividing parts composed of cleavage parts and sealing parts in claim 13 are all slight constructional changes of the teachings of the prior art. The circular shape of a package in claim 14 is also a simple change of the entire shape. Hence, no particular difficulty is found in the claims 11-14 and the effect of said technical changes is readily foreseen by a person skilled in the art. Therefore, claims 11-14 are not considered to involve an inventive step under PCT Article 33(3).

Claims

1. (canceled)
- 5        2. (amended) A noodle product, comprising a teabag containing powders or pellets of vegetables comprising radish juice, bean sprout juice, green tea leaves, large green onion, green chili pepper, dried fragrant mushroom, sea tangle, garlic, onion, and dried pollack shreds.
- 10       3. (amended) A noodle product, comprising a teabag containing powders or pellets of vegetables comprising green tea leaves, a large green onion, green chili pepper, dried fragrant mushroom, sea tangle, garlic, onion, and dried pollack shreds,  
 wherein radish juice and bean sprout juice are mixed with a conventional  
 15 powdered soup base to form a liquid mixture, which is then contained in an additional wrapper.
- 20       4. (amended) A noodle product, comprising a teabag containing powders or pellets of flakes comprising lyophilized large green onion, green chili pepper and dried fragrant mushroom, and vegetables comprising green tea leaves, sea tangle, garlic, onion, and dried pollack shreds,  
 wherein radish juice and bean sprout juice are mixed with a  
 conventional powdered soup base to form a liquid mixture, or powders or  
 pellets of radish juice and bean sprout juice are mixed with a conventional  
 25 powdered soup base to form a solid mixture, which is then contained in an additional wrapper.
5. (amended) A noodle product, comprising a teabag containing flakes comprising lyophilized green tea leaves, a large green onion, green chili pepper

and dried fragrant mushroom and  
another teabag containing powders or pellets of vegetables comprising sea  
tangle, garlic, onion and dried pollack shreds,

5        wherein radish juice and bean sprout juice are mixed with a  
conventional powdered soup base to form a liquid mixture, or powders or  
pellets of radish juice and bean sprout juice are mixed with a conventional  
powdered soup base to form a solid mixture, which is then contained in an  
additional wrapper.

10

6. (amended) A noodle product as defined in any one of claims 2 to 5,  
comprising 30g of radish juice, 11g of bean sprout juice, 7.5g of large green  
onion, 8g of green chili pepper, 0.5g of dried fragrant mushroom, 11g of onion,  
3g of dried pollack shreds, 4.3g of garlic, 5.4g of sea tangle and 1.5g of green  
15    tea leaves, based on 10g of a conventional powdered soup base.

7. A method of preparing a noodle, comprising subjecting noodle  
materials to a series of the steps of kneading, cutting, steaming, shaping,  
cooling and drying, wherein potato starch in the noodle materials is used in an  
20    amount of 5-10% based on total weight of the materials, and the cut noodle is  
infused with a flavor at the steaming step, and the shaped noodle is directly  
cooled and dried without being fried.

8. The method as defined in claim 7, wherein the flavor is an aromatic  
25    material.

9. A noodle product, comprising a teabag containing vegetables in the  
form of lyophilized flakes, powders or pellets, and an oil-free, flavor-infused  
noodle prepared by the method of claim 7.



10. A package comprising a wrapper containing a soup base or a noodle, wherein a dividing part is formed at a predetermined portion of the wrapper, and the soup base or the noodle is separately contained in at least two  
5 packaging parts.

11. The package as defined in claim 10, wherein a tearing part is formed at one end of the wrapper to cross the packaging parts of the wrapper.

10 12. (amended) The package as defined in claim 10 or 11, wherein uneven parts are formed at both sides of the dividing part to tear the wrapper parallel to the dividing part of the wrapper, and other uneven parts are formed at the side ends of the packaging parts to vertically tear the wrapper relative to the dividing part of the wrapper.

15 13. The package as defined in claim 10, wherein the dividing part is formed with cleavage parts at both sides of a sealing part thereof to separate both packaging parts centering the sealing part.

20 14. The package as defined in claim 10, wherein the wrapper is formed in a circular shape.

15 15. The package as defined in claim 10, wherein the wrapper is formed in a rectangular shape.

25 16. The package as defined in claim 10, wherein each of the packaging parts is separately openable.